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ABSTRACT

This brief examines the relationship between the percentage of minority students and education spending across the school districts of the United States using data from the 1989-90 school year. The brief explores whether districts with a high minority enrollment have less to spend than low minority districts, and how this relationship changes when considered in terms of educational buying power rather than actual dollars. Educational buying power means actual dollars expressed in a way that reflects differences in the relative costs of providing educational services by accounting for cost of living differences and differences in the educational needs of students. Districts with the highest percentage of minority students spend the most on public education, but when spending is considered in terms of buying power, the districts with the highest percentage of minority students actually spent the least. If race is considered simultaneously with other variables related to district spending, race does not appear to be a factor in lower levels of buying power in high minority districts. These results illustrate some of the difficulties involved in attempting to measure the equity of educational expenditures. (Contains three figures and seven references.) (SLD)

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ISSUE BRIEF

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# Do Districts Enrolling High Percentages of Minority Students Spend Less?

*Brown v Board of Education*, the landmark Supreme Court case in 1954, clearly documented inequality in the provision of public education for minority students. The doctrine of "separate but equal" was found to be unconstitutional because segregated services were found to be inherently unequal. These schools were also unequal due to the fact that education expenditures were lower in these minority schools (Ashmore 1954).

Over 40 years later, questions of possible inequities in education spending based on race remain. Relatively few empirical studies have carefully examined this question through the use of national data. However, at least one descriptive study of selected school districts, Kozol's *Savage Inequalities* (1991), presents a searing indictment of inequality in American education and what it can mean for individual children. This case study analysis suggests a strong relationship between minority enrollment and inadequate resources.

The purpose of this brief is to explore the relationship between the percentage of minority students and education spending across the school districts of the nation using data from the 1989–90 school year. Do high-minority districts have less to spend than low-minority districts? How does this relationship change when it is considered in terms of educational "buying power" rather than actual dollars?

"Buying power" is a new concept currently under development by the education research community. Actual dollars are expressed to reflect differences in the relative costs of providing educational services. For the purpose of this analysis, this adjustment accounts for differences in the cost of living and differences in the educational needs of students. The cost-of-living adjustment reflects the fact that an expenditure of $6,000 per student in New York City buys substantially less in actual education resources (e.g., teacher time, supplies, and equipment) than a comparable expenditure in Des Moines, Iowa. The need adjustment takes into account expenditure differences that result from the additional resources required to provide an education to students in need of special education, bilingual, and compensatory education services. For example, the same average expenditure per student is not likely to go as far in districts with large numbers of students with severe disabilities.[1]

A last question is that when considered with other variables that may be statistically related to race (e.g., poverty), to what degree is race alone associated with differences in school district spending?

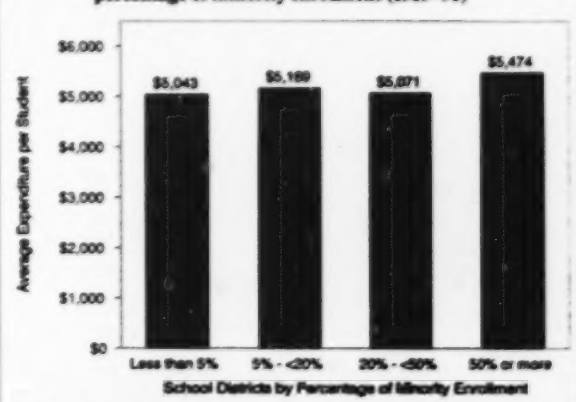
1. It has long been recognized that cost and need adjustments are important to analyses of equity in education (Berne and Stiefel 1984). An index calculated by McMahon and Chang (1991) is used to reflect differences in the cost of living across the nation. The "student need index" includes counts of the three categories of special-need students most prominently recognized through state and federal categorical funding provisions: special education, limited English proficient, and poverty. Because these adjustments assign students with special needs a count greater than one, average "buying power" per student (figure 2) is less than the average expenditure per student (figure 1). For a detailed discussion of these adjustments, see Parrish, Matsumoto, and Fowler (1995).

These findings are taken from a Research and Development Report (Parrish, Matsumoto, and Fowler 1995) produced by the National Center for Education Statistics. Since this research is intended to be developmental in nature, these results should be considered tentative and suggestive.

**Districts with the highest percentages of minority enrollment spend the most on public education.**

One approach to examining the relationship between minority enrollment and education spending is to compare public school expenditures in districts with different levels of minority enrollment. Figure 1 shows expenditures for four categories of school districts by the percentage of minority students enrolled. Each of these four categories of school districts represents about 25 percent of the nation's public school children. Figure 1 shows that on average, during the 1989–90 school year, spending was fairly equal across school districts with less than 50 percent minority enrollment. However, districts in which 50 percent or more of the students enrolled were racial minorities spent more than those districts with less than 50 percent minority enrollment. For example, the average expenditure differential between districts with the highest and the lowest percentage of minority students was $431 per student ($5,474 versus $5,043).

**Figure 1. Education expenditures in the United States in relation to percentage of minority enrollment (1989–90)**



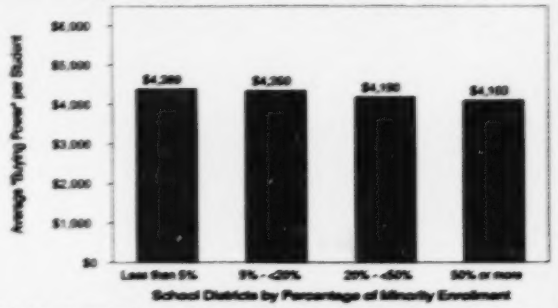

NOTE: Each of the four categories of school districts by percentage of minority enrollment represents about 25 percent of the nation's public school students.
SOURCES: U.S. Department of Education, National Center for Education Statistics, 1989 Common Core of Data; Bureau of the Census, 1990 Census of Governments, Survey of Local Government Finances.

**When education spending is considered in terms of "buying power," districts with the highest percentages of minority students spend the least.**

In terms of "buying power" in school year 1989–90, districts with the highest percentages of minority students spent $286 less on

public education per year than did districts with the lowest percentages of minority students ($4,103 vs. $4,389 per student) (figure 2). This change in direction occurs because school districts enrolling high percentages of minority students are more likely to be located in high-cost urban centers and to serve substantial numbers of students with special needs, thereby reducing the "buying power" of the dollars received.

**Figure 2. Education "buying power" in the United States in relation to percentage of minority enrollment (1989–90)**

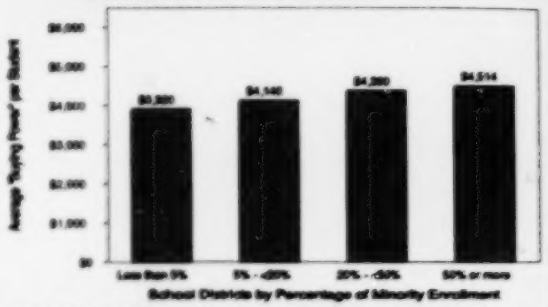



NOTE: Each of the four categories of school districts by percentage of minority enrollment represents about 25 percent of the nation's public school students.
SOURCES: U.S. Department of Education, National Center for Education Statistics, 1989–90 Common Core of Data; 1990 Census School District Special Tabulation (summary file set 1); Bureau of the Census, 1990 Census of Governments, Survey of Local Government Finances.

**When race is considered simultaneously with other variables related to district spending, race does not appear to be a factor in lower levels of "buying power" in high-minority districts.**

In an attempt to isolate the effect of race using additional statistical procedures, the association of district minority enrollment to education "buying power" can be considered simultaneously with other variables likely to be related to district spending. School district wealth, enrollment, and percentages of limited English proficient, special education, and at-risk children are examples of some of the variables included.[2] This approach reveals a positive association between minority enrollment and expenditures among districts that were similar with respect to wealth, size, location, and types of students in attendance in school year 1989–90. Expressed in terms of "buying power," and with other related variables held constant, the average expenditure in districts enrolling the highest percentages of minority students was $594 greater than in their lowest minority enrollment counterparts ($4,514 - $3,920) (figure 3).

**Figure 3. Education "buying power" and percentage of minority enrollment with the effects of other variables related to district spending removed (1989–90)**




NOTE: Each of the four categories of school districts by percentage of minority enrollment represents about 25 percent of the nation's public school students.
SOURCES: U.S. Department of Education, National Center for Education Statistics, 1989–90 Common Core of Data; 1990 Census School District Special Tabulation (summary file set 1); Bureau of the Census, 1990 Census of Governments, Survey of Local Government Finances.

## Discussion

How do these results address questions about percentages of minority students and school district spending? In terms of actual expenditures (figure 1) in school year 1989–90, the nation's highest minority districts spent the most on their students' public education. When these expenditures are converted to "buying power" (figure 2), this relationship changes direction. Taking the analysis one step further, attempting to sort out the unique association of race with education spending, the relationship between education spending and the percentage of minority enrollment is again positive (figure 3).

These varied results reflect some of the difficulties involved in attempting to measure equity of educational expenditures. While high-minority districts have the most to spend in actual dollars per student, they also tend to be located in some of the nation's most urbanized and expensive settings. These are the very districts portrayed in such case study accounts as Kozol's (1991) and are often described as some of the nation's most distressed school districts. It is also interesting to note that 53.5 percent of African Americans rate their local school systems as "fair/poor" compared to 30.1 percent for the general population (Joint Center for Political and Economic Studies 1996). The findings presented in this brief suggest that higher education expenditures in high-minority districts (figure 1) translate into lower levels of actual "buying power" (figure 2). However, when race is considered simultaneously with other variables related to district spending (figure 3), race does not appear to be a factor in lower levels of actual "buying power" in high-minority districts. Minority children in poverty are often viewed as those least served through current public education allocation systems. These findings suggest that although general inequalities may remain for students in poverty, they do not seem to be directly associated with minority status. The alternative measures of education resources and varied findings presented in this brief illustrate some of the complexities associated with these types of equity analyses. It is hoped that these initial findings will stimulate additional research on this important policy topic.

2. For a full description of the variables and statistical procedures, see Parrish, Matsumoto, and Fowler (1995).

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This **Issue Brief** is based on an NCES Research and Development Report (Parrish, Matsumoto, and Fowler 1995). NCES Research and Development reports were initiated (1) to share studies and research that are developmental in nature, (2) to share the results of studies that are, to some extent, on the "cutting-edge" of methodological developments, and (3) to participate in discussions of emerging issues of interest to education researchers, statisticians, and the federal statistical community in general.

This **Issue Brief** was prepared by Thomas Parrish, American Institutes for Research. For more information on this **Issue Brief**, contact William Fowler (202) 219–1921. To order additional copies of this **Issue Brief** or other NCES publications, call 1–800–424–1616. NCES publications are available on the Internet at http://www.ed.gov/NCES.

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